



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,110	10/02/2000	Louis B. Rosenberg	IMM1P044A	4151

7590 04/23/2002

JAMES R RIEGEL
IMMERSION CORPORATION
801 FOX LANE
SAN JOSE, CA 95131

EXAMINER

NELSON, ALECIA DIANE

ART UNIT

PAPER NUMBER

2675

DATE MAILED: 04/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/678,110	Applicant(s) Rosenberg et al.
Examiner Alecia Nelson	Art Unit 2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on Feb 4, 2002

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 15, 17, 18, 36-48, and 75-100 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 15, 17, 18, 36-42, 45-48, 75-81, 84-97, 99, and 100 is/are rejected.

7) Claim(s) 43, 44, 82, 83, and 98 is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). _____

16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152)

17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) Other: _____

Art Unit: 2675

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. *Claims 15, 17, 18, 36-42, 45-48, 75-81, 84-97, 99 and 100* are rejected under 35 U.S.C. 103(a) as being unpatentable over Culver (U.S. Patent No. 6,256,011).

With specific reference to **claims 15, 17, 75, 76, 88, and 89**, Culver teaches a multi-function control device capable of force feedback. There is taught a hand held interface control device (10) which includes a housing (12), a moveable arm assembly (14), and a cylindrical roller

Art Unit: 2675

(22) (see column 3, line 46-column 4, line 19). There is also taught a second sensor (34) that is coupled to the axis (30) of the roller (22) to detect rotation of the cylindrical roller (22) about axis B (see column 4, lines 51-60). Culver also teaches that force feedback is provided in the degree of freedom of roller (22) using an actuator (42). Actuator (42) can be coupled to the axis (30) of the roller (22) by a belt or other transmission, and output forces on the roller (22) in the rotary degree of freedom about axis B. Actuator (42) can be an active actuator that outputs forces in the degree of freedom, or a passive actuator that provides resistance to motion (see column 7, lines 8-35). The actuator (42) is preferably controlled with driver signals from a microprocessor or other controller (see column 7, lines 64-65). With further reference to the dependent claims Culver teaches that in one preferred embodiment, the control of a graphical object such as a cursor by the control device (10) is provided in a graphical user interface displayed by a host computer. The GUI includes several different objects, such as icons, pull down menus, windows, scroll bars, graphical buttons, etc. The cursor can be controlled to manipulate and/or select these various graphical objects with the control device (10). The device is also capable of controlling such as changing of a volume for a stereo, the rotation of an apparatus set on a grounded pedestal, or the velocity of a controlled vehicle. A variety of electronic or computer apparatuses can be controlled by the device (10), such as, a television set, a microwave oven, a washer or dryer, an audio home stereo component or system, a home computer, a set top box or web browser, a video game console, a home automation system, a telephone, etc. Device (10) can be coupled to the apparatus or the panel (12) can be physically remote from the device (10) and

Art Unit: 2675

communicate with the device using signals transferred through wires, cables, wireless transmitter/receiver, etc (see column 5, line 36-column 6, line 9).

Culver fails to specifically teach that the control device is capable of adjusting the tactile feel in accordance with a selected one of a plurality of functions selected by the user. However, Culver does state that roller (22) is capable of including forces that simulate ends of travel for the roller or inform the user that end of travel has been reached. Therefore there is a predetermined tactile response, of a jolt or detent force, when the end of the adjusted range has been reached (see column 7, lines 36-64). Further as mentioned above, Culver teaches the range of usage of the device to include controlling a plurality of functions for the many different types of household appliances.

Therefore it would have been obvious to one having ordinary skill in the art to allow for a device similar to that which is taught by Culver to have the ability to control different electronic devices and allow the user to have a different response associated with each of the different functions of the electronic devices. This would thereby provide feedback to the user to confirm the action sent by the user to control the electronic device as well as the type of action which will be preformed by the electronic device.

Art Unit: 2675

Allowable Subject Matter

3. ***Claims 43, 44, 82, 83, and 98*** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any response to this action should be mailed to: Commissioner of Patents and Trademarks Washington, D.C. 2023; or faxed to (703)309-9051, (for formal communications intended for entry) or: (703)308-6606 (for informal or draft communications, please label “PROPOSED” or “DRAFT”). Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alecia D. Nelson whose telephone number is (703)305-0143, between the hours of 8:00 a.m. and 5:00 p.m. on Monday-Friday.

If attempts to reach the above examiner by telephone are unsuccessful, the examiner’s supervisor, Steve Saras, can be reached at (703)305-9720.

adn/ADN
February 21, 2001


DENNIS-DOON CHOW
PRIMARY EXAMINER